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A newly installed bioretention cell in  
front of the DDOE Headquarters



## **DISTRICT OF COLUMBIA**

### **2012 NONPOINT SOURCE POLLUTION PROGRAM**

### **ANNUAL REPORT**

February 2013

District of Columbia  
Department of the Environment  
Watershed Protection Division

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## Mission and Goals of the District of Columbia's Nonpoint Source Program

The mission of the District of Columbia's Nonpoint Source Program is to prevent and control nonpoint source pollution in the District's watersheds. Employing both regulatory and non-regulatory approaches, the Program works to safeguard the city's water and soil resources as well as the health and welfare of citizens using those resources.

Long-term goals and short-term milestones to mark progress toward those goals are outlined in the *District Nonpoint Source Management Plan II: Addressing Polluted Runoff in an Urban Environment* (2000). A new Nonpoint Source Management Plan will be developed in 2013. The existing plan is aimed at reducing nonpoint source pollution from urban runoff, construction, and hydrologic/habitat modification and includes:

- Supporting activities that reduce pollutant loads from urban runoff, construction activity, combined sewer overflows and trash disposal for the purpose of attaining present designated uses by 2015 and future designated uses by 2025.
- Supporting programs and activities that strive to restore and maintain healthy natural habitat, species diversity and necessary base flow to all of the Anacostia River tributaries by 2015 and to all surface waters of the District of Columbia by 2025 by restoring degraded watersheds and preserving healthy ones.
- Coordinating the District Nonpoint Source Program efforts with other District, federal, not-for-profit, environmental advocacy, private sector programs and adjoining jurisdictions to deliver the best possible nonpoint source pollution prevention and control services in the District of Columbia with the resources available.
- Carrying out effective information and education campaigns on nonpoint source pollution prevention to targeted audiences who live, work, teach or visit in the District of Columbia and its watersheds, reaching at least ten thousand (10,000) individuals each year.

DC's Nonpoint source management program has also created three detailed Watershed Implementation Plans (WIPs) for three major watersheds in the District. All of these plans, including the *Oxon Run WIP* (2010) *Rock Creek WIP* (2010), and the *Anacostia WIP* (2011) have been approved by the EPA. Additionally, the District participated in the development of the Army Corps of Engineers facilitated Anacostia Watershed Restoration Plan which was released to the public in April of 2010. These plans lay out waterbody impairments, technically appropriate implementation projects, and timelines that guide DDOE in its work.

The District Department of the Environment (DDOE) assesses the health of all significant waterbodies in the District, and prioritizes water quality improvement efforts based on data gathered from water quality monitoring. DDOE then characterizes waterbody impairments and threats; these characterizations are included in the District of Columbia's Section 305(b) reports as required by the federal Clean Water Act. The reports describe many of the District waterbodies as not supporting their swimmable (primary contact recreation) and fishable (fish consumption) designated uses.

Urban stormwater runoff is a prevalent source of pollutants to District of Columbia waterbodies. Primary nonpoint source pollutants of concern include nutrients, sediment, toxicants (Heptachlor Epoxide and DDE), pathogens and hydrocarbons. The few waterbodies that partially or fully support a designated use are also threatened by nonpoint source pollutants. Processes to prioritize subwatersheds for nonpoint source implementation in the District can be found in the Watershed Implementation Plans referenced above. To properly address the water quality problems associated with the District's urban environment, the District will amend its existing Nonpoint Source Management Plan. The new document will outline a comprehensive strategy for managing nonpoint source pollution in an urban environment in an effort to

restore beneficial uses. The new Plan will set new goals and objectives including specific milestones for when they will be achieved.

This annual report is written in response to *Sections 319 (h)(8) and (11) of the Clean Water Act (33 USC 1329)*, for the purpose of documenting progress made in fiscal year 2011 by the District of Columbia in implementing its *Nonpoint Source Management Plan II: Addressing Polluted Runoff in an Urban Environment* (2000).

## Regulatory Management

The District employs both regulatory and non-regulatory approaches to reach its nonpoint source milestones. The Branches within the Watershed Protection Division responsible for regulatory management are the Technical Services Branch and the Inspection and Enforcement Branch.

These branches aim to ensure that any development or construction activities occurring within the District properly control potential erosion or runoff from their sites and properly adhere to all federal and city laws relating to floodplains and waterways. In addition, they ensure that Best Management Practices (BMPs) are installed correctly and receive appropriate maintenance and upkeep.



**Figure 1 - A new bioretention cell treating stormwater from a District bus parking lot**

## Technical Services Branch

The Branch reviews construction and grading plans for stormwater management, erosion and sediment control, and flood plain management considerations. As required by EPA regulations regarding new construction permits, all new construction in the District must have Storm Water Pollution Prevention Plans (SWPPPS) that "identify all potential sources of pollution which may reasonably be expected to affect the quality of stormwater discharges from the construction site."

The District already has strong erosion and sediment control regulations in place, requiring an erosion and sediment control permit for any land disturbance over 50 square feet. In comparison, other jurisdictions require that these permits be filed when more than 5,000 square feet of soil are disturbed. In 2003, the DDOE published the *District of Columbia Soil Erosion and Sediment Control Standards and Specifications* and the *DC Storm Water Management Guidebook*. These documents are used by DDOE in the plan review process for new construction.

In FY2012 the Technical Services Branch accomplished the following:

- Reviewed 2079 building permit applications and plans for regulatory compliance.
- Processed 17 Environmental Impact Screening Forms (EISFs) after they were reviewed for regulatory compliance.
- Provided 3144 customers with technical assistance.
- Filed 105 EPA Stormwater Notices of Intent (NOIs) for construction activities with land disturbance one acre and greater.
- Published new Proposed Rulemaking on Stormwater Management and Soil Erosion and Sediment Control and a new Draft Stormwater Management Guidebook that follows the new rulemaking (<http://ddoe.dc.gov/proposedstormwaterrule>). The new Rulemaking and Guidebook will be finalized in mid-2013.



In addition to these regulatory actions, engineers from the Technical Services Branch regularly attend relevant trainings on new stormwater technologies. They also attend regional workshops related to stormwater control and Chesapeake Bay restoration efforts. Some examples of this include:

- Three staff engineers attended a 3-day HEC–RAS Hands-On Computer Workshop in hydrologic and hydraulic modeling related to stormwater and floodplain management.
- Five staff engineers participated in a Webinar on Stormwater BMP Performance in the Chesapeake Bay Region.
- Six staff engineers attended a presentation offered by Imbrium Systems on the Jellyfish Membrane Filter system for water quality BMPs.
- Three staff engineers attended a presentation on StormPod, an innovative structural device for on-site stormwater retention and infiltration. The presentation was offered by Rotondo, a pre-cast manufacturer of stormwater management products.
- One staff engineer attended a Workshop on Environmental Site Design offered by the Maryland Society of Professional Engineers.
- Seven staff engineers participated in a joint Center for Watershed Protection and DDOE training on the District's proposed Stormwater Retention Standards.
- One staff engineer participated in on-going webinars on stormwater management and rainwater harvesting and reuse offered by the Contech Firm.
- One staff engineer attended the Chesapeake Bay Urban Stormwater Workgroup meetings including representing the District on various task forces.
- One staff engineer was actively involved in working with the Center for Watershed Protection on the update of the Stormwater Management Guidebook and the accompanying stormwater management regulations including organizing training sessions for DDOE technical review staff on the new stormwater design standards and specifications.

### Inspection and Enforcement Branch

The District has a strong Inspection and Enforcement Branch that inspects construction sites throughout the District to make sure they are in compliance with District regulations. DDOE also regularly inspects existing stormwater management facilities to ensure that they properly maintained and in working order. In addition, the Inspection and Enforcement Branch is responsible for investigating citizen complaints relating to soil erosion and drainage problems, and recommending appropriate solutions.

DDOE performs outreach to industrial and construction facilities through workshops, brochures, and site inspections. Inspection and Enforcement personnel use inspections to promote awareness of the proper methods of facility maintenance for stormwater regulation compliance. To aid facilities in ensuring proper maintenance of stormwater management facilities, DDOE has established and published guidelines for their proper maintenance.

In FY2012 the Inspection and Enforcement Branch accomplished the following:



**Figure 2 - Maintenance of the Hickey Run trash BMP**

- Conducted 9731 inspections at construction sites for enforcement of erosion and sediment control and stormwater management regulations.
- Took 193 enforcement actions, including stop-work orders and civil infractions, to strengthen enforcement activities.
- Conducted 149 investigations for erosion, drainage and related complaints.
- Inspected 1218 stormwater management facilities to ensure proper functioning of these facilities.
- Added one new staff member.
- Continued to develop outreach materials, including brochures, web material and presentations.
- Continued to work with DCRA toward the inclusion of stormwater management in their Certificate of Occupancy process.
- Continued to develop an effective green roof technical assistance program that includes working with a sub-grantee to develop a roof maintenance video.
- Continued to develop an inspection protocol to certify the functioning of LIDs submitted by applicants for credit under the Stormwater Discount Program.

DDOE inspectors now use Toughbook computers in the field and Watershed Protection Division continues to work on automating inspection forms for all Inspection and Enforcement operations as a move toward a total paperless process. Desktop computers will no longer be provided to inspectors since portable toughbooks have replaced them. This is expected to streamline regulatory operations by allowing inspectors to have a complete inspection history of any sites while in the field, including inspections related to other media.

## Non-Regulatory Management

Through non-regulatory programs, the District educates community members about nonpoint source pollution and how their actions contribute to it, with the ultimate goal of changing personal behavior for an effective long-term solution. Additionally, the District tests and develops innovative approaches to urban nonpoint source pollution reduction, increases acceptance and implementation of Low Impact Development (LID), and provides support and financial incentives for citizens wishing to implement LID and pollution prevention techniques.

### Planning and Restoration Branch

This Branch of the DDOE, Watershed Protection Division, sponsors and conducts non-regulatory programs and activities that protect and restore river, stream, and wetland habitats in the District and increase the ecological diversity of the District of Columbia and Chesapeake Bay watersheds.

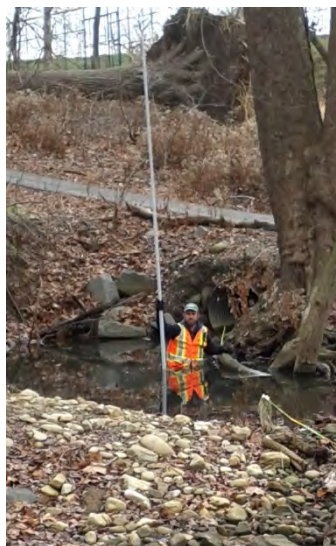
With the goal of changing personal behaviors to achieve the goal of fishable and swimmable waterways the Watershed Protection Division educates community members about nonpoint source pollution and how their actions contribute to it. Additionally, the Planning and Restoration Branch tests and develops innovative approaches to urban nonpoint source pollution reduction, increases acceptance and implementation of Low Impact Development (LID), and provides support and financial incentives for citizens wishing to implement LID and pollution prevention techniques.

Some of this non-regulatory work includes:

- Wetland and river habitat creation and restoration programs
- Technical advice on the application of Low Impact Development (LID) and innovative Best Management Practices (BMPs) technology
- Grants to fund LID retrofits
- Education and outreach programs



- RiverSmart Rooftops program (Green roof incentive program)
- RiverSmart Homes program
- RiverSmart Schools program
- RiverSmart Communities program
- Pollution prevention programs



**Figure 3 - DDOE staff monitoring Milkhouse Ford post-restoration**

### **Stream Restoration**

Stream restoration is the act of modifying the existing channel of a stream in an attempt to improve the environmental health and habitat of the waterway. All District streams face similar threats from urbanization due to high stormwater flows from impervious surface runoff. The erosion we see in urban streams is the stream's way of adjusting to accommodate the new (geological) flow regime it is experiencing. Stream restoration attempts to create a new channel that is in stasis with the flows it experiences.

In FY2012, DDOE initiated new stream restoration designs, expanded two existing projects, completed several others and began post restoration monitoring on the completed projects. All told the Watershed Protection Division completed and began post restoration monitoring on over 11,000 linear feet of restored stream reaches in the District and has over 10,000 linear feet of stream reaches in the design process to be restored in FY2013 and 2014.

### ***Bingham Run and Milkhouse Ford Regenerative Stormwater Conveyances***

DDOE constructed two regenerative stormwater conveyance systems in FY2011 in first order tributaries of Rock Creek named Bingham Run and Milkhouse Ford. With the restoration projects completed in the previous year, activities in FY2012 focused on monitoring the restoration sites to ensure that they functioned as designed. Monitoring activities included vegetative surveys, photographic surveys, and geomorphic surveys. Survey work will help DDOE demonstrate the effectiveness and stability of this type of stream restoration technique while accumulating documentation to prove their effectiveness and understand their weakness.

### ***Nash Run Stream Restoration***

In FY2012, DDOE and its contractor neared completion on designs for an 800 linear foot stretch of restoration work on Nash Run that included a floatable trash trap however the project was modified when it was discovered that a culvert at the downstream end of the project reach is undersized. Due to challenges that the undersized culvert presented, the Planning and Restoration Branch worked with property owners downstream of the initial project reach to expand the scope of the project. The expanded project will now entail 1,400 linear feet of stream restoration, a floatable trash trap, and an enlarged mid-reach culvert to minimize flood risk and increase likelihood of fish passage to the upper portion of the restoration reach.



**Figure 4 - DDOE staff collecting trash in Nash Run**

The Nash Run restoration project is expected to commence in FY2014 and when complete will be a tremendous improvement to the surrounding neighborhood and the Anacostia River. The restoration project will reduce bank erosion, improve stream connectivity to its floodplain, increase the riparian cover along the stream, and significantly reduce trash and debris in the Anacostia River.

### *Springhouse Run Stream Restoration*

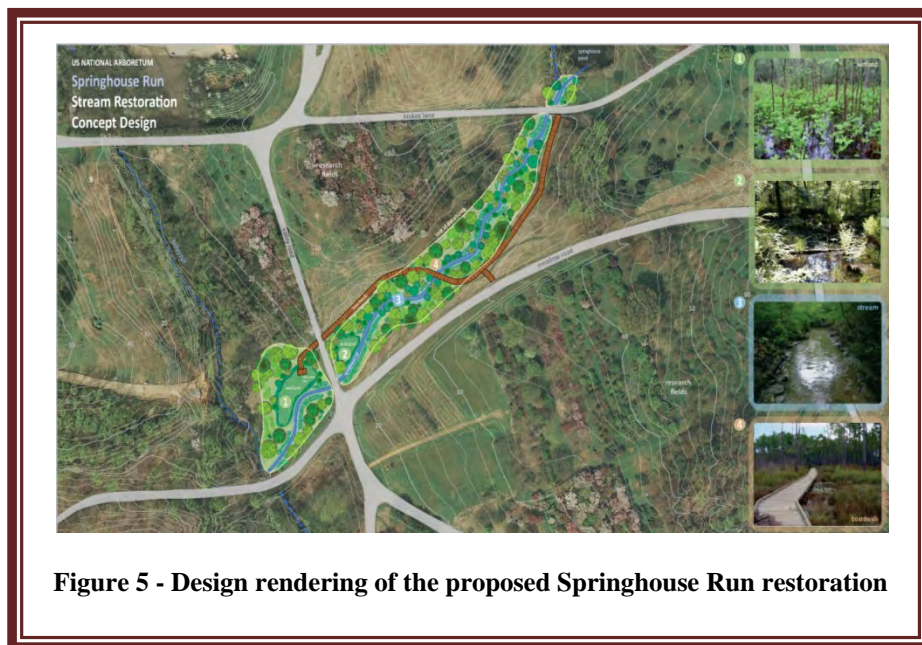
Springhouse Run is a remnant of one of the original tributaries to Hickey Run, a tributary of the Anacostia River, with a drainage area of approximately 100 acres. The majority of the tributary is stable, although it is highly altered and armored in most areas. The armoring has resulted in a stream with poor habitat value and very limited ability to trap sediment and uptake nutrients.

The Watershed Protection Division is coordinating the design of a stream and habitat restoration for Springhouse Run. The stream will be reconnected to its historic floodplain and its sinuosity will be restored. This project reach measures approximately 1,600 feet in length and lies entirely within the U.S. National Arboretum. In FY2012, in collaboration with the National Arboretum, DDOE expanded the scope of the project to include additional stream sections in the upstream portion of the project reach.

An additional component of this project is to construct bioretention facilities in the parking areas near the Arboretum Visitor Center. This project is being funded in part with EPA 319 funds. DDOE expects the project to commence in late FY2013 and it will be completed in FY2014.

### *Broad Branch Stream Daylighting*

The goal of this project is to daylight a 1,600 foot portion of Broad Branch, a tributary to Rock Creek in Northwest DC. Daylighting a stream is the act of restoring to the open air some or all of the flow of a previously covered creek, or stormwater drainage. Daylighting this section of the Rock Creek watershed will improve water quality at the location and downstream water quality by exposing water to sunlight, air, soil, and vegetation, all of which help process and remove pollutants. The main focus of the project is the daylighting of a tributary to Broad Branch, a tributary of Rock Creek in the District of Columbia. Restoration components include main stem channel restoration using natural channel design, the restoration of several eroded tributary gullies using regenerative stormwater conveyance design, and several upland LID projects to slow and filter run-off from adjacent roadways. Having completed a lengthy design process DDOE anticipates contracting the work and commencing the restoration project in early FY2013. This project is being funded with EPA 319 funds.



**Figure 5 - Design rendering of the proposed Springhouse Run restoration**



### *Watts Branch Stream Restoration*

The Watts Branch Stream Restoration Project was completed in early FY2012 and for the remainder of the year DDOE monitored the project to determine its effectiveness at achieving its design objectives. Similar to other restored stream reaches DDOE is using a combination of activities to monitor the restoration project. Restoration monitoring consists of photographic and vegetative surveys, and geomorphic assessments. DDOE previously awarded a grant to the Metropolitan Washington Council of Governments (MWCOG) to monitor macroinvertebrates in Watts Branch pre and post-restoration. In addition, DDOE staff members are presently collecting water quality samples in storm events and comparing the pollution loads with those of the non-restored Oxon Run.



**Figure 6 - A restored Watts Branch in 2012**

### *Pope Branch Regenerative Stormwater Conveyances*

Having completed the Pope Branch Regenerative Stormwater Conveyances (RSCs) in FY2011, DDOE is presently monitoring the Pope Branch RSCs as part of our on-going post-project monitoring protocols. These projects have remained stable throughout the year. Monitoring at these sites is less rigorous because there is much less flow to these RSCs than those at Milkhouse Ford and Bingham Run.

### *Pope Branch Stream Restoration and Sewer Line Replacement*



**Figure 7 - A completed RSC on Pope Branch**

Located in southeast Washington, DC, Pope Branch is a 1.6-mile first-order tributary of the Anacostia River. The entire stream lies within DC city boundaries. The primary land uses of the 250-acre watershed are parkland and residential lands. Pope Branch is listed on the 303d List for bacteria, organics, and metals. The primary sources of pollutants are stormwater runoff from yards, streets, and parking lots as well as an aging sanitary sewer that runs along the stream.

This project has multiple components, all of which will work toward improving the water quality of Pope Branch. DDOE, DC Water, and the District Department of Parks and Recreation have partnered on a stream restoration and sewer replacement project in the Pope Branch tributary of the Anacostia River. Located in Southeast, Pope Branch parallels Massachusetts and Pennsylvania

Avenues in Southeast Washington and lies in a watershed that is predominantly single family homes. Due to high volume and velocity stormwater flow that enter the stream, substantial bank erosion has compromised the stream banks and has exposed the sewer line in several areas. Additionally, DDOE has funded the construction of several LID storm water retrofits to begin addressing the issue of untreated storm water runoff in this subwatershed. DDOE has worked with a small citizens group, the Pope Branch Park Restoration Alliance, to help organize neighborhood activities such as trash clean ups.

In anticipation of DC Water starting the project in FY 2013 DDOE recently awarded MWCOG a grant to do both pre and post monitoring out at Pope Branch for several factors including water quality, storm flow, bacterial source tracking, and macroinvertebrates. The monitoring by MWCOG combined with the monitoring to be conducted by DDOE staff post restoration will help demonstrate the effectiveness of the proposed restoration design technique.



**Figure 8 - Stream erosion in Alger Park**

### *Alger Park Stream Restoration*

In FY2013 contracted to produce conceptual designs for a stream restoration project within Alger Park and capture and treat stormwater from the surrounding contributing sewershed area. This project aims to restore a 1,600 feet stretch of one of the most degraded stream valleys in the District through a comprehensive approach to managing stormwater upland and restoring the receiving water body to a state of improved water quality, bank stability, and enhanced habitat features.

### *Environmental Education and Outreach*

The DDOE, Watershed Protection Division, sponsors and conducts environmental education and outreach activities targeted to teachers, environmental educators and students throughout the District. These programs and resources include the following efforts.

### *Conservation Education (Project Learning Tree, Project WET, and Project WILD)*

These internationally recognized programs are utilized to train educators in innovative techniques for exploring a wide range of

environmental concepts with students and teaching critical thinking skills that lead to environmental stewardship (grades K-12).

### *Teacher Training Workshops*

Teacher-training workshops in environmental education can provide teachers with continuing education credits through accredited environmental curriculums that support the DCPS teaching and learning standards and provide students with meaningful environmental education experiences via outdoor activities and events. In FY2012 these workshops included:

- In November 2011, WPD staff assumed the role of Project Learning Tree State Coordinator. In this capacity, WPD has been able to increase its delivery of Project Learning Tree workshops for teachers and environmental educators.
- As part of two professional development days organized by DCPS, WPD trained 17 6-12th grade DCPS teachers in Project Learning Tree's K-8 Curriculum Guide. WPD staff also partnered with a nonprofit organization to host a PLT PreK-8 Curriculum workshop at Bancroft Elementary School in December 2011, reaching 15 teachers and educators. Staff also trained the entire preschool staff (16 teachers) at St. Columba's School in the Early Childhood curriculum.
- For the first time, PLT curriculum training was also integrated into the RiverSmart Schools Teacher Training, which reached 37 teachers. Teachers learned how to use activities in the guide when planning lessons for their future outdoor classroom spaces.



**Figure 9 - Teachers learning about runoff at a teacher training workshop**

### *DC Environmental Literacy Plan*

On July 2, 2012, Mayor Vincent C. Gray submitted the state Environmental Literacy Plan to the Council of the District of Columbia. Like other states across the country, the development of the District's state Environmental Literacy Plan (ELP) was mandated by legislation, the DC Healthy Schools Act of 2010. Passed by the DC Council, the Healthy Schools Act and its 2011 amendments seek to improve the health and wellness of all District students. The legislation addresses nutrition, health education, physical education and physical activity, Farm-to-School programs, and school gardens. Additionally, the law acknowledges that creating and sustaining an environmentally-friendly school environment and integrating environmental education into the schools' curriculum are essential to the health and wellness of students, as well as the health of the local environment and community.



**Figure 10 - Students reading an environmental poem**

The Act directed DDOE to draft an Environmental Literacy Plan in conjunction with other District education agencies and stakeholders. WPD staff led this two-year effort to create a road map *that will lay the foundation for* District-wide implementation and integration of environmental education into the K-12 curriculum. The plan includes:

- Relevant teaching and learning standards adopted by the State Board of Education
- Professional development opportunities for teachers
- How to measure environmental literacy
- Governmental and nongovernmental entities that can assist schools; and
- Implementation of the plan.

DDOE continues to collaborate with DC Public Schools, DC Office of the State Superintendent of Education, DC Public Charter School Board, DC State Board of Education, DC Department of Parks and Recreation, the University of the District of Columbia, the DC Environmental Education Consortium, and other community stakeholders to implement this plan.

### *RiverSmart Schools*

RiverSmart schools works with applicant schools to install Low Impact Development (LID) practices to control stormwater. These practices are specially designed to be functional as well as educational in order to fit with the school environment. Additionally, schools that take part in the RiverSmart Schools program receive teacher training on how to use the sites to teach to curriculum standards and how to properly maintain the sites.

In FY2012 DDOE, Watershed Protection Division accomplished the following:

- Provided 37 teachers with a 4-day workshop on RiverSmart schools site usage and programming.



- Conducted 30 classroom visits and provided 20 boat trips to support integration of watershed lessons for the RiverSmart Schools project at each participating school.
- Engaged students, teachers, and volunteers in Community Work Days to construct and maintain Schoolyard Conservation Sites. 100 kids from five (5) schools participate in 20 Community Work Days.

Additionally DDOE completed the construction of five RiverSmart Schools projects. Some highlights of these projects are:



**Figure 11 - Permeable pavers at Stokes PCS**

#### **Elsie Whitlow Stokes Public Charter School**

- Retrofitted 7,000 square feet of impervious parking with permeable pavement.
- Installed a trench drain system to convey stormwater runoff from another impervious parking area an underground 24 inch diameter perforated pipe where it infiltrates into the soil.
- Completed an outdoor classroom on the southern side of the campus with seating for 30 students.

#### **Hardy Middle School**

- Installed a cistern that captures stormwater runoff from an adjacent roadway and then conveys it to a stormwater wetland.
- Performed invasive plant removal on the hillside of the school and planted over 300 species of native and wetland plants and shrubs.

- Provided students in 6th and 7th grades with lessons about their local environment and watershed and engaged students in wetland planting activities.

#### **Benjamin Banneker High School**

- Constructed two bioretention planters to capture the first 1.2 inches of stormwater runoff from areas of the school rooftop that drain to a central courtyard.
- Installed built-in seating for students using the courtyard.

#### **Kelly Miller Middle School**

- Completed an outdoor classroom area. Twenty volunteers assisted in the installation and maintenance of a pollinator garden and an edible forest garden.
- Engaged volunteers on DCPS Beautification Day to conduct basic maintenance/weeding of the garden to prepare the outdoor classroom for the upcoming school year.

#### **Walker Jones Education Campus**

- Constructed a 45' x 12' covered outdoor classroom and installed a 1,300 gallon cistern.
- Educated more than 250 students about rainwater harvesting since the cistern was installed.



**Figure 12 - Hardy Middle School stormwater wetland**



**Figure 13 - An exhibitor at the DCEEC teachers night**

### *District of Columbia Environmental Education Consortium (DCEEC)*

DDOE helps to organize a network of environmental educators throughout the city so that ideas and resources can be shared among them. The D.C. Environmental Education Consortium (DCEEC) provides opportunities for networking, event coordination and program partnering among its members. The members provide environmental expertise, professional development opportunities, curricula and resources, and hands-on classroom and field studies to District schools.

In FY2012 DDOE and DCEEC hosted their 5th Annual D.C. Teacher's Night at the U.S. Botanical Gardens on September 20, 2012. Over 150 teachers registered and around 90 attended and learned about environmental programming from approximately 30 exhibitors representing local environmental and science education organizations. The teachers met with local environmental educators for connection with environmental education opportunities both inside and outside the classroom. Participants also took part in hands-on experiments and left with lesson plans for their classrooms.

This year the District held its first annual Growing Healthy Schools Week, which is the fusion of DC School Garden Week and DC Farm to School Week. Growing Healthy Schools Week highlights the interrelated goals of these two former weeks and reflects the components of the recent Healthy Schools Act, which encourages linkages between farm to school and school garden programs.

Growing Healthy Schools Week celebrates school gardens and farm to school programs throughout the District. During the week, school staff worked with local non-profits, farms and chefs to coordinate inspiring activities aimed at engaging the broader community, increasing environmental literacy, building program capacity, and connecting students to their food. DDOE and the DC Schoolyard Greening Committee of DCEEC coordinated the School Garden Tour via van and bicycle as part of this week.

### *The Anacostia River Environmental Education Fair*

This annual outdoor event offers District school children a variety of educational experiences designed to promote in them a conservation and stewardship ethic toward their watersheds, the Anacostia and Potomac Rivers, and the Chesapeake Bay. The fair also provides additional resources to District teachers interested in enriching their curriculum through environmental studies. This year the fair took place on Friday, May 4, 2012. In total the fair included 11 DCPS schools, 38 teachers, 470 students, and 16 exhibitors. Students took part in activities on and off the water and learned about human behaviors and the connections between the health of their watersheds and the Bay.

### *Meaningful Watershed Educational Experiences (MWEEs)*

As part of DDOE's sub-grant program several initiatives were funded for non-profit partners to create meaningful watershed educational experiences for hundreds of District young people. Outcomes include:

- Alice Ferguson Foundation (AFF), with DDOE funding, successfully conducted 13 overnight field-study trips for 293 4th and 5th grade students at Hard Bargain Farm from May 2011



**Figure 14 - Students on the Living Classrooms Boat the "Half Shell"**

through June 2012. AFF provided 20 MWEE hours for 352 students and 4 follow-up hours for 189 students.

- AFF with DDOE funding provided Trash-Focused MWEE for Third-Fifth graders at Burville ES (114 students), Houston ES (68 students), Kimball ES (39 students), Anne Beers ES (116 students), and Aiton ES (52 students). They provided 389 MWEE hours.
- Living Classrooms of the National Capital Region worked with all of the 3rd, 4th, and 5th grade classes at two schools, River Terrace ES (40 students) and Kimball ES (90 students). They provided 398 MWEE hours and 20 hours of follow-up for 913 4th and 5th grade students.

### Pollution Prevention

The Planning and Restoration Branch offers grants and directly oversees programs that reduce non-point source pollution through direct action and through outreach to District residents, businesses, and visitors. These programs and resources include the following efforts.

#### Green Roof Rebate/Retrofit Program

Historically, the District has offered a rebate for installation of a new green roof or the retrofit of an existing roof. Programs offered through DDOE provided varying rebate amounts with varying constraints. In 2012, DDOE restructured this rebate program to offer a single application process and set dollar rebate of \$5 per square foot regardless of the roof size. For 2013, the rebate program will continue to offer a single application process with a rebate of \$5 per square foot.

In 2012, the District added 427,794 square feet of green roof to its portfolio. These projects were funded both publicly and privately, and DDOE's rebate program funded 27,287 square feet, or approximately six percent of all green roofs installed District-wide in 2012.



**Figure 15 - Green roof at the International Monetary Fund**

#### RiverSmart Homes Program

Since 2008 DDOE has developed a Low Impact Development (LID) retrofit program aimed at single family homes. The program started with eight demonstration sites – one in each Ward of the city. It then expanded to a pilot program in the Pope Branch watershed of the city. The program is now mature and has been open city-wide since summer of 2009.

Through this program, DDOE performs audits of homeowner's properties and provides feedback to the homeowners on what LID technologies can be safely installed on the property. The city also offers up to \$1,600 to the homeowner to help cover the cost of installation of any LID the homeowner chooses. Currently the program offers five different landscaping items including shade trees, native landscaping to replace grass, rain gardens, rain barrels and permeable pavement.

The District has recognized the importance of targeting homeowners for pollution reduction measures because the residential property is the largest single land use in the city and is the slowest of all construction areas to be redeveloped. The program has continued in popularity with an average of 100 homeowners signing up a month.

FY2012 accomplishments include the following:



- Installed 739 rain barrels
- Planted 488 shade trees
- Installed 162 rain gardens
- Implemented BayScaping at 198 properties
- Replaced impervious surfaces with green space or pervious pavers at 23 properties.
- Conducted 1,040 audits

In addition the RiverSmart Homes program and DDOE holds annual contractor trainings for any local

landscape contractor to become a RiverSmart Homes contractor. Two trainings were conducted in FY2012 with 19 contractors completing the indoor classroom and outdoor hands on rain garden build.

#### *Rain Barrel Rebate Program*

Property owners who purchase and install a rain barrel from an approved rain barrel list are able to apply for rebate. Rebate amount depends on the volume of the rain barrel. Rain barrels with a capacity of 75 gallons or more are eligible for a \$100 rebate and rain barrels with a capacity of 74 gallons or less are eligible for a \$50 rebate. The rebate program includes conducting outreach to advertise the program through traditional channels and through innovative approaches, e.g. partnerships with local hardware stores. The rain barrel rebate program is administered by a nonprofit organization called DC Greenworks. DC Greenworks verifies that the requested

rebates are in the District and that the rain barrels were actually installed. Homeowners are eligible to receive up to two rebates per property. Twelve rain barrels have been rebated and installed in FY2012.

#### *Rain Garden, Pervious Paver, and Impervious Surface Reduction Rebate*

Any single family homeowner in the District of Columbia is eligible for the Rain Garden, Pervious Paver, and Impervious Surface Reduction Rebate, including homeowners who have already received funding through the RiverSmart Homes program. The rebate is based on how many square feet of impervious area is treated with the rain garden or pervious pavers/impervious surface removal. Impervious areas can either be rooftops or areas that are covered in concrete, asphalt, etc. The rebate will reimburse homeowners \$1.25 per impervious square foot treated. The minimum square footage is 400 square feet, which would total a \$500 rebate. The maximum rebate is \$1,000 or treating 800 square feet or more of impervious surface. The rebate debuted in April 2012 and since that time eight rebates have been issued treating 4,262 square feet of impervious area.

#### *RiverSmart Communities Program*

The RiverSmart Communities program is an extension of the RiverSmart Homes program to multi-family residences such as condominiums and co-ops, businesses, houses of worship, etc. The current program, RiverSmart Homes, targets private, single-family homeowners to encourage the use of five specific stormwater BMPs (rain gardens, BayScaping, pervious pavement, rain barrels, and shade trees) to control nonpoint source pollution on their property. The RiverSmart Communities Program aims to implement similar practices



**Figure 16 - RiverSmart Homes auditors on DDOE bikes**



**Figure 17 - Cisterns and rain gardens at Mayfair Mansions**

on a larger scale that is more appropriate for the increased runoff area often seen on larger developments.

The RiverSmart Communities program has received sixty applications from cooperative, condominium, apartments and churches. Ten sites were awarded funding this fiscal year. Eight are completed, one is under construction, and the final will begin construction in early February of 2013.

**Table 1 - 2012 RiverSmart Communities Projects**

<b>Watershed</b>	<b>BMP</b>	<b>Property Name</b>	<b>Status</b>	<b>Treatment area (sf.)</b>
Potomac	Rain garden	McLean Gardens	Completed May of 2012	400
Anacostia	Cistern and BayScaping	Logan Condominiums	Completed July of 2012	2,000
Potomac	Rain garden	Washington Metropolitan Church	Completed July of 2012	1,500
Anacostia	Cistern and BayScaping	Mayfair Mansions	Completed December 2012	1,000
Anacostia	Cistern	Richardson Place Dwellings	Under Construction	1,000
Rock Creek	Permeable pavement	Kalorama Mews	Completed December 2012	6,000
Anacostia	Permeable pavement	Harvard Mews	Completed December 2012	7,000
Potomac	Asphalt removal	Fairfax Village	Completed January 2013	11,000
Anacostia	Rain garden	St. Paul's	Completed December 2012	5,300
Potomac	Two rain gardens	The Westchester	Rebate-March 2013-Build	36,253
Oxon	Rain garden	Meadowbrook	Construction starting 2-4-13	4,800

### *Tree Planting*

The District of Columbia has been called “The City of Trees.” It has a tree canopy cover of 35 percent, which is high for a dense urban environment, but is lower than the canopy cover has been historically – even when the city had a higher population density. In an effort to improve air and water quality, reduce the urban heat island effect, and offset greenhouse gas emissions, the city has adopted a 40 percent tree canopy goal. In FY2012, DDOE and the Urban Forestry Administration (UFA) drafted an Urban Tree Canopy Plan to achieve the canopy goal. Through his Sustainability Plan Mayor Gray has called for achieving the canopy goal by 2032. To achieve that goal the District will need to plant an average of 10,800 trees annually (an increase of 25 percent over current efforts). Currently, UFA, which maintains the city's street trees, plants an average of 4150 trees annually.

DDOE, with help from non-profit partners such as Casey Trees and Washington Parks and People, plants trees on private, federal, and other District lands. FY2012 accomplishments include the following:



- Planted 46 acres of new trees as part of the Watts Branch Restoration Project.
- Planted 898 trees as part of the RiverSmart Homes and Tree Rebate Program
- Planted native trees as a part of the Regenerative Stormwater Conveyance installations

### *Trash Removal*

In 2010, the District and the State of Maryland promulgated a TMDL for trash for the Anacostia River. As part of TMDL development, non-point source loads for trash were developed. These loads were calculated based on stream and shoreline transect sampling performed by the Anacostia Watershed Society, through a grant from DDOE. All non-point source loads were attributed to illegal dumping in the TMDL. For the District's portion of watershed, an annual load allocation totaling 20,048 lbs was assigned.

Some of the tools the District are applying to meet the goals of the trash TMDL include: 1) education and outreach; 2) stream and shoreline clean-ups; and 3) new regulations and enhanced enforcement. In 2010 the District awarded a grant to the Alice Ferguson Foundation (AFF) to develop an anti-littering education and outreach campaign. In FY2012 DDOE continued to distribute and advertise anti-littering messages developed through the grant including bus stop posters, bus advertisements, brochures, and bumper stickers. DDOE will continue with its anti-littering educational efforts in FY2013 by providing a grant to another non-profit to continue this work targeting the Anacostia watershed. As part of that grant, the non-profit will perform follow-up surveys to assess the effectiveness of the campaign.



**Figure 18 - An AFF anti-litter poster**

Every year, thousands of pounds of trash are removed from the District's shorelines and stream banks from volunteers. DDOE has supported the AFF Potomac Watershed Clean-up and the Anacostia Watershed Society, Anacostia Earth Day Clean-up since their inception. In FY2012, AFF received a grant from the National Geographic FieldScope program to develop a clean-up tracking database. This on-line GIS will allow AFF, and other partners, to track the results of all of the volunteer clean-ups that take place in the Potomac River watershed on an annual basis. DDOE plans to use data collected by AFF to report to EPA and others on the success of local clean-ups.

Lastly, the District has implemented several innovative policies that have helped curb trash from entering local waterways. First, in January of 2010, the District promulgated the Anacostia Clean-up and Restoration Act, or Bag Law, which required a \$0.05 fee be placed on all disposable plastic bags used with sale of food and alcohol in the District. DDOE found in a previous study that plastic bags were one of the largest sources of trash in the Anacostia River.

In 2012, the DC Metropolitan Police Department expanded a littering enforcement program into Wards 5 and 7. Under this new program, DC police can ticket anyone they see carelessly discarding litter in the city. This enforcement effort complements previously established programs designed to reduce litter from moving vehicles and illegal dumping.

### *Outreach on Pet Waste and Enforcement of Pet Waste Regulations*

In FY2012 DDOE developed new educational materials including colorful fliers and videos that inform citizens of their legal obligations to manage pet waste. These materials are regularly distributed at public events such as community meetings/fairs, environmental events, pet registration days, and community



Figure 19 - DDOE's pet waste sign

cleanup days. In addition, this information is distributed door to door in communities where storm drain marking is taking place. These educational materials are also available on the DDOE website. In FY2012 piloted a targeted outreach effort in the NoMA Business Improvement District (NoMA BID). The NoMA BID installed educational pet waste all around the North of Massachusetts area.

DDOE will eventually reach all 8 wards with its signs and fliers. DDOE will also work with realtors throughout the city to include fliers into new homeowner packets, instructing them of the mandatory pick up law. The Department of Health (DOH) and Metro Police Department are the 2 primary enforcers for this law, since DDOE lacks any authority to issue fines. DOH report that they issues hundreds of fines every year, and DDOE has worked closely with them to find the rat 'hot spots' to target pet waste outreach. Hopefully, this targeted effort will reduce the spread of public health diseases, such as leptospirosis which can occur between dogs, rats, and humans. Pet waste not only degrades water quality, but it is also a public health issue.

#### *Integrated Pest Management and Nutrient Management*

DDOE has developed an education and outreach program on Integrated Pest Management (IPM) and Nutrient Management. DDOE's program on

Integrated Pest Management (IPM) and Nutrient Management is intended to inform the public on the proper use and disposal of pesticides and on the use of safer alternatives. The program provides education and outreach activities designed to property owners and managers about environmentally sound practices with regard to the use of pesticides in the yard or garden and the introduction of "good" pests into the landscape. Through DDOE's Nutrient Management Program, the property owners receive education regarding the proper amount of fertilizer to use on a lawn. In addition to fertilizer use, this program addresses the proper way to mow, the proper use of mulch, and the effects of applying too much mulch. Furthermore, the DDOE Pesticide Management Program trains commercial applicators in the legal and safe appliance of pesticides and herbicides. Commercial applicators must receive a certification through the program to legally apply pesticides and herbicides in the District. A part of this program involves the use of IPM. In FY2012 DDOE certified 1,377 commercial pesticide applicators.

#### *Storm Drain Marker Program*

In FY2012, DDOE Watershed Protection Division installed 671 storm drain markers throughout the District of Columbia with private citizens, youth groups, individuals from various volunteer groups and DCPS school groups.

#### *Low Impact Development Retrofit Program*

Low Impact Development Practices are focused on four main practices: cistern installation, establishment of bioretention cells, retrofit of vegetated (green) roofs and installation of pervious pavers.

In FY2012, DDOE/WPD partnered with the Golden Triangle Business Improvement District (BID) to install a bioretention cell at a busy downtown intersection (the corner of Connecticut Avenue, NW and Rhode Island Avenue, NW). Although not treating large stormwater volumes, the project has been a huge success from a public education standpoint. Furthermore this demonstration project developed new potential restoration and retrofit partnerships with the various city BIDs. Another project featuring bioretention in the public right-of-way overseen by the Golden Triangle BID is anticipated for FY2013.

The William Penn House, a Quaker seminar and meeting center completed a green-roof demonstration project in FY2012. The vegetated roof furthers the Penn House's commitment to sustainability started when they installed small rain garden in 2008. The William Penn House has been committed to educating their guests and the public about the importance of minimizing water pollution. They have spread this message beyond their own property through partnerships with a local school and on Capitol Hill where they are working to install more stormwater-friendly landscaping.

Continuing the theme of small stormwater projects that deliver powerful outreach and education messages was the completion of the Empowerhouse – a collaborative, public-private effort to build two affordable solar powered homes. The homes, which were displayed on the National Mall as a part of the Solar Homes Decathlon, were later installed in a low income community on the banks of Watts Branch. The project took first place for affordability at the Solar Decathlon and thousands of visitors saw not only their energy efficient features but also their sensitive stormwater design. The stormwater features include rain gardens that filter stormwater from the property and a cistern that captures water from the rooftop for grey water reuse – saving the homeowners hundreds of dollars annually on their water bill. Furthermore the properties treat not only their own stormwater but also accept stormwater from the public right of way through curb cuts in the roadway leading to rain gardens. This project involved DDOE, Vika (a private development firm), Groundwork Anacostia, Habitat for Humanity, DC Housing and Community Development, and students from Parsons, the New School and Stevens Institute of Technology.



**Figure 20 - The rain garden taking rooftop and roadway runoff at the Empowerhouse**

Further accomplishments include:

- Aiding the District Department of Transportation in their development of LID standards and specifications for projects in the public right of way; and
- Completion of 65% designs for the RiverSmart Washington demonstration project - an environmental initiative designed to combine attractive, cost-effective landscaping with innovative streetscaping methods to help reduce stormwater pollution in Rock Creek; and

### **Nonpoint Source Pollution Watershed Implementation Planning**

The District Department of Environment, Watershed Protection Division, is responsible for watershed management planning within the District of Columbia. The Division manages these activities in accordance with its mission to conserve the soil and water resources of the District of Columbia and to protect its watersheds from nonpoint source pollution.

By strengthening its existing programs and continuing to seek innovative solutions for reducing nonpoint source pollution in an urban setting the District of Columbia continues to move steadily toward reaching the goals outlined in its Nonpoint Source Pollution Watershed Implementation Plans.

The tables below include and describe the coordinated activities conducted in designated watersheds and sub-watersheds to meet those goals. Accomplishments in fiscal year 2012 include the following:

**Table 2 - Anacostia Watershed 2012 Activities**

Activity	Description	Status	Output (quantity)	Partners	Funding
Green Roof Rebate Program	A rebate program to subsidize the installation of green roofs throughout the city	Completed	288,333 sq. ft. of green roof	Anacostia Watershed Society	MS4
Springhouse Run Stream Restoration	A 1800 foot stream restoration project with wetland creation for a tributary of Hickey run	In Progress; completion scheduled for 2013	1800 linear feet stream restoration	National Arboretum-USDA; Friends of the National Arboretum	319
National Arboretum Bioretention Cells	Installation of bioretention cells to treat over 1 acre of run-off from parking areas around the main visitor center	In Progress; Designs to be completed in 2013	43,560 square feet of impervious area treated	National Arboretum-USDA; Friends of the National Arboretum	319
Nash Run Stream Restoration	Restoration of 1400ft reach of degraded stream in NE DC	In Design	1400 linear feet of stream restored with a trash trap	NFWF, EPA, Community Residents	NFWF, Local, CWSRF
Alger Park	Restoration of 1,700 feet of degraded stream with associated upland LID projects	In Design (30%)	1,700 linear feet of degraded stream restored with associated upland LID projects	DDOT, DPR, DGS, Community Residents	Local
Storm Drain Marking	Marking storm drains with labels identifying pollutants that drain into the Anacostia River	Completed	453 markers	Green Summer; Volunteers	NFWF; 319
RiverSmart Home Audits	Stormwater audits for residential properties in the District	Completed	539 homes audited	NA	MS4, ARRA
130 gallon rain barrel installations	As part of the RiverSmart Homes program, DC Greenworks installs 130 gallon rain barrels on residential properties.	Completed	337 rain barrels	DC Greenworks	MS4
Shade tree installation	As part of the RiverSmart Homes program, Casey Trees installs medium to large	Completed	229 shade trees	Casey Trees	ARRA



Activity	Description	Status	Output (quantity)	Partners	Funding
	shade trees on residential property.				
Pervious Paver installation	As part of the RiverSmart Homes program, pervious pavers are installed to replace existing impervious surface on residential property.	Completed	13 properties	Alliance for the Chesapeake Bay	ARRA
BayScaping installation	As part of the RiverSmart Homes program, BayScaping is installed to replace existing turf.	Completed	91 proper-ties average 120 sq. ft. per property	Alliance for the Chesapeake Bay	ARRA
Rain Garden installation	As part of the RiverSmart Homes program, rain gardens are installed to replace existing turf.	Completed	70 rain gardens installed average 50 sq. ft. per property	Alliance for the Chesapeake Bay	ARRA
William Penn House	Installation of a green roof and bioretention	Completed	1,800 sq. ft. of impervious area treated	William Penn House	319
EmpowerHouse	Rain Garden for Green Home along Watts	Completed	669 square feet of impervious area treated	Parsons School, DC Habitat for Humanity	319
SEED School	Large cistern and rain garden	Completed	11,300sq. ft. of impervious area treated	SEED School	319
Phelps High School	Large Bioretention Cell	Completed	18,300sq. ft. of impervious area treated	DCPS	319
Stokes Elementary (RiverSmart School)	Retrofit of an asphalt parking lot into a permeable pavement system. Construction of a retaining wall and planting of the adjacent slope for stabilization.	Complete	Permeable pavement facility treating about 7,000 sq. ft.	Elsie Whitlow Stokes Public Charter School, Anacostia Watershed Society Watershed	319



Activity	Description	Status	Output (quantity)	Partners	Funding
	Rehabilitation of existing infiltration trench.			Steward Academy.	
Mayfair Mansions	Cisterns and Bayscaping	Complete	1,000sq. ft. treated	AWS, Mayfair Mansions	319
Richardson Dwellings	Cisterns	To be completed in 2013	1,000sq. ft. treated	AWS, DCHA	319
Harvard Mews	Permeable Pavement	Complete	7,000sq. ft. treated	AWS, Harvard Mews	319
St. Paul's	Rain Garden	Complete	5,830sq. ft. treated	AWS, Saint Paul's	319

**Table 3 - Oxon Run Watershed 2012 Activities**

Activity	Description	Status	Output (quantity)	Partners	Funding
Fairfax Village Impervious Surface Removal	Removal of an old tennis court and replaced with garden beds, trees, and shrubs	In-Progress	11,000sq. ft. treated	AWS, Fairfax Village	319
Bald Eagle Recreation Center Rehabilitation Project	Include bio-retention cells and permeable paving to absorb stormwater from this facility and prevent runoff from causing erosion on NPS land	In Progress  Coordination with OPEFM and conceptual designs		Department of Parks and Recreation and OPEFM	MS4

**Table 4 - Rock Creek Watershed Activities FY 2012**

Activity	Description	Status	Output (quantity)	Partners	Funding
Broad Branch Stream Daylighting	Daylighting (restoring to the open air) the flow of a previously covered portion of Broad Branch.	Designs and EA completed. Army Corps permit issued. Working on SOW for contracting installation.	1,600 linear feet of stream restored.  Four bioretention facilities treating about 1.8 acres.	DDOT, Peruvian Embassy, NPS	319, Clean Water State Revolving Fund, Bag Bill Revenue
Installation of two regenerative stormwater conveyances (RSCs): Peruvian Embassy	Type of LID that uses stream restoration techniques to create a dependable open channel conveyance that greatly reduces erosive forces and positively impacts the ecology of the treated area.	Designs completed. Projects will be installed with the Stream Daylighting.	2 regenerative conveyances installed with a combined length of 1300 linear feet.	Peruvian Embassy	319, Clean Water State Revolving Fund, Bag Bill Revenue
RiverSmart Washington	Collaborative effort to retrofit two built-out sewersheds and quantify the degree to which such an effort can be a cost-effective method reduce pollution to local waterways.	Private property work 95% complete. Working on 95% designs for right of way projects.	Two sewersheds and approximately 27 acres of stormwater treated.	DDOT, DC Water, Rock Creek Conservancy, Casey Trees, LimnoTech	NFWF, DC Water, DDOT, DDOE
Linnean RSC installation and research	Installation and monitoring of two Regenerative Stormwater Conveyances.	Grants for design, construction, and monitoring negotiated. Grantee design and monitoring activity to begin soon.	1000 linear feet of stream and outfall restoration.	DDOT, DPR	NFWF, MS4

Activity	Description	Status	Output (quantity)	Partners	Funding
Kling Run Restoration	Stream restoration of Kling Run and the removal of a roadway next to Kling Run which is to be replaced with a bike path and LID.	60% designs are complete. An EA has been completed. The project is waiting on funding.	3,100 linear feet of stream restored.  At least 0.75 acres of impervious surface removed and 1.4 acres of stormwater treated.	DDOT, NPS	DDOT
Beach Drive LID	LID retrofits along Beach Drive NW to treat uncontrolled stormwater into Fenwick Branch.	60% designs are complete. The project is waiting on funding.	At least 1 acre of stormwater treated.	DDOT, NPS	MS4
Broad Branch Road LID	Reconstruction of Broad Branch from Nevada Ave to Beach Drive.	EA underway.	Potential for approximately 4 acres of roadway stormwater treatment.	DDOT	DDOT
Oregon Avenue LID	Reconstruction of Oregon Ave from Military Ave to Western Ave.	EA completed. Funding for construction identified. Designs being challenged by neighboring properties.	4.2 acres of roadway stormwater treated. Erosion at several stormwater outfalls stabilized.	DDOT	DDOT
RiverSmart Communities - Kalorama Mews	Permeable pavement rebate program to Homeowner Association at the location of 1832 Biltmore St, NW	Completed December 2012	6,000 square feet of permeable pavers installed.	HOA (Homeowner Association)	319

## **Summary**

The District of Columbia's Nonpoint Source Program meets the challenges of the highly urbanized setting within the District by seeking and employing innovative solutions for reducing nonpoint source pollution. With the help of creative partnerships and cutting-edge technologies, the District will continue to make significant progress toward achieving its goals. In FY2012 the District of Columbia will work to strengthen its existing programs for regulation and enforcement, stream and wetland restoration, education and outreach and pollution prevention. The Nonpoint Source Program will continue to provide technical assistance and resources that that will improve the water quality District's waters.



**Appendix A: Financial Information**

<b><i>FY 2012 Grant</i></b>	<b><i>Source</i></b>	<b><i>Federal</i></b>	<b><i>Match</i></b>
319 Grant (FY12)	EPA	979,000	652,668
Ches. Bay Implementation (Sec. 117)	EPA	767,000	767,000
Ches. Bay Regulatory Enhancement (Sec. 117)	EPA	623,036	623,036

## Appendix B: Agency Partners

District of Columbia - Lead Agency:

Department of the Environment, Watershed Protection Division

### **District Government:**

Deputy Mayor's Office for Planning and Economic Development (DMPED)

DC Department of General Services (DGS)

DC Department of Parks and Recreation (DPR)

DC Department of Public Works (DPW)

DC Department of Transportation (DDOT)

DC Metropolitan Police Department (MPD)

DC Office of Planning (OP)

DC Office of the State Superintendent of Education (OSSE)

DC Public Charter School Board

DC Public Schools (DCPS)

DC State Board of Education

DC Water and Sewer Authority (DC Water)

University of the District of Columbia

Urban Forestry Administration (UFA)

### **Federal Government:**

Architect of the Capitol

National Park Service (USNPS)

US Army Corps of Engineers (USACE)

US Department of Agriculture Natural Resources Conservation Service (USDA-NRCS)

US Environmental Protection Agency (EPA)

US Environmental Protection Agency, Chesapeake Bay Program (CBP)

US Fish and Wildlife Service (USFWS)

US Geological Survey (USGS)

**Local Groups:**

Alice Ferguson Foundation (AFF)

Anacostia Watershed Society (AWS)

Casey Trees

DC Environmental Education Consortium

DC Greenworks

DC Habitat for Humanity

Friends of Takoma Recreation Center

Golden Triangle Business Improvement District

Groundwork Anacostia

Interstate Commission on the Potomac River Basin (ICPRB)

Living Classrooms of the National Capital Region

Marina Environmental Education Fund (MEEF)

Metropolitan Washington Council of Governments (MWCOG)

North of Massachusetts Avenue (NoMA) Business Improvement District

Potomac Conservancy

Project Learning Tree

Rock Creek Conservancy

Student Conservation Association (SCA)

Sustainable Community Initiative (SCI)

Washington Parks and People

William Penn House